

Claims

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1. A drive arrangement for at least one auxiliary system of a motor vehicle, having an internal combustion engine, at least one supplementary motor, and a gear, characterized in that the gear (16) is a planetary gear (32), which is operatively connected to the engine (12) and the at least one supplementary motor (13), each via a respective input shaft (18, 20), and to the auxiliary system (22) via an output shaft (24).

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2. The drive arrangement of claim 1, characterized in that the supplementary motor (13) is a second internal combustion engine.

3. The drive arrangement of claim 1, characterized in that the supplementary motor (13) is an electric machine (14).

4. The drive arrangement of claim 3, characterized in that the electric machine (14) is a starter generator of the internal combustion engine (12).

5. The drive arrangement of one of claims 2 ~~or 3~~, characterized in that a control unit (30) is assigned to the drive arrangement (10) and detects an rpm (50) of the output shaft (24) and governs the supplementary motor (13) as a function of the rpm (50).

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6. The drive arrangement of claim 5, characterized in that the control unit (30) includes a sensor (26), which measures the rpm (50) of the output

shaft.

- a *Sub F12* 7. The drive arrangement of ^{claim 1} ~~one of the foregoing~~
a ~~claims~~, characterized in that a sun wheel (34) of the
5 planetary gear (32) is connected in a manner fixed
against rotation to the input shaft (20) of the
supplementary motor (14), and a carrier (36) for at
least one planet wheel (38) is connected to the input
shaft (18) of the engine (12).

- a 8. The drive arrangement of ^{claim 1} ~~one of the foregoing~~
a ~~claims~~, characterized in that the auxiliary system (22)
is a climate control compressor (70).

9. The drive arrangement of claim 8,
characterized in that a spur gear stage and/or a
reversible step-up gear precedes the climate control
compressor (70).

10. The drive arrangement of claim 2,
characterized in that the ~~auxiliary~~ system (22) is a
generator.

- a *Sub F12* 11. The drive arrangement of ^{claim 1} ~~one or more of the~~
a ~~foregoing claims~~, characterized in that a relatively
small electric machine (14) is used, which at a moderate
power requirement makes a wide governing range possible.

12. The drive arrangement of claim 3,
characterized in that the planetary gear (32), the
electric machine (E1), and the output shaft (24) are
components of a vehicle transmission (74).

- Sub D27* 13. A method for operating a drive arrangement

for at least one auxiliary system of a motor vehicle,
having an internal combustion engine, at least one
supplementary motor and a gear, characterized in that

5 a) the gear (16) is a planetary gear (32) with at
least two input shafts (18, 20) and at least one output
shaft (24), and a torque is transmitted from the engine
10 (12) and the at least one supplementary motor (13) via a
respective one of the input shafts (18, 20), to the
output shaft (24) and subsequently to the auxiliary
system (22); and

b) a control unit (30) is assigned to the drive
arrangement (10) and detects an rpm (50) of the output
shaft (24) and governs the supplementary motor (13) as a
function of the rpm (50).

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Sub 17 14. The method of claim 13, characterized in that
a set-point value or a set-point range for the rpm (50)
of the output shaft (24) is specified to the control
unit (30).

5 15. The method of claim 14, characterized in that
the supplementary motor (13) is an electric machine
(14), which can also be operated as a generator or
electric brake, and if the result of the torque
transmitted by the engine (12) is an rpm (50) that is
above the set-point value or set-point range for the rpm
(50) of the output shaft (24), the electric machine (14)
is operated as a generator.

a 16. The method of one of claims 13-15,
characterized in that the torque of the supplementary
motor (13) is increased if a power requirement to the

